

**REMARKS**

**I. INTRODUCTION**

Claims 1-20 are presently pending in this application, with claims 1-10 and 13-20 currently standing rejected, and claims 11 and 12 presently standing as objected to. Claims 8 and 11 have been amended. In light of the amendments made above and the arguments to appear below, Applicants respectfully request reconsideration of their application.

**II. AMENDMENTS TO THE SPECIFICATION**

Paragraph [0022] has been amended to correct typographical error (i.e., replacing the word “flowing” with “following”). Applicants respectfully submit that no new matter has been added as a result of this amendment.

**III. AMENDMENTS TO THE CLAIMS**

Claim 8 has been amended to clarify that the plurality of vacuum ports recited therein are formed within the recited vacuum manifold body. Applicants respectfully submit that support for this amendment can be found throughout the specification, claims and drawings as originally filed, and therefore, no new matter has been added as a result of this amendment.

Claim 11 has been rewritten in independent form to include all of the limitations of claim 8. Applicants respectfully submit that no new matter has been added as a result of this amendment.

**IV. REJECTION OF CLAIM 1-4, 6 AND 7 UNDER 35 U.S.C. § 103(a)**

Claims 1-4, 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,498,663 issued to Cantrill in view of U.S. Patent No. 5,387,068 issued to Pearson.

More particularly, the Office asserts that Cantrill shows an air-powered vacuum tool comprising removable interface plates (30) each having a dedicated vacuum port (40, 42) associated therewith and a plurality of vacuum ports (35) along each plate segment. The Office further asserts that while Cantrill fails to specifically disclose a vacuum

generator provided for each port (40, 42), Pearson shows it is old and well known to separately provide an individual vacuum generator (44) for each area of vacuum desired. Therefore, the Office asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a separate vacuum generator for each vacuum port (40, 42) of Cantrill's tool as taught by Pearson so that only those ports needed for engaging certain sized articles could be actuated thereby saving energy. For at least the following reasons, Applicants respectfully traverse this rejection.

As an initial matter, Applicants would like to thank Examiner Kramer for taking the time to discuss this matter on October 10, 2006, as well as for returning Applicants' telephone message by leaving a detailed voice message on October 11, 2006 in which certain portions of Office Action were clarified. It is Applicants' understanding, based on the aforementioned discussion and clarification, that the structure of the Cantrill reference that the Office correlates with the "plurality of vacuum ports formed in a vacuum manifold" is "vacuum ports (40, 42);” and that the structure corresponding to the recited "plurality of pickup orifices" is that labeled as reference numeral 35 in the Cantrill reference (*i.e.*, apertures 35). Accordingly, Applicants are relying on this understanding in responding to the rejection set forth above. If, however, Applicants' understanding is incorrect, Applicants would appreciate notification of the same, and hereby reserve the right to present further arguments based on the correct correlation between the limitations recited in the claim and the cited reference.

"Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case." MPEP § 2141 (emphasis in original).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP § 2143. Applicants respectfully submit that with respect to independent claims 1 and 7, Cantrill and Pearson, either alone or in combination, fail to teach or suggest all the limitations of claims 1 and 7.

Firstly, Applicants respectfully submit that the cited references fail to teach or disclose “a plurality of vacuum ports formed in a vacuum manifold body.” (emphasis added). Applicants respectfully submit that the “vacuum ports (40, 42)” the Office correlates with the recited “plurality of vacuum ports” are not formed in a vacuum manifold body, but rather are “supply lines (40, 42)” that serve as conduits (*i.e.*, tubing) between a vacuum supply chamber 45 and segment(s) 30. Accordingly, as shown in Figure 1 of Cantrill, the “vacuum ports (40, 42)” are not formed within a manifold body, but rather appear to be mounted on the top surface of platen 10. Thus, Applicants respectfully submit that the cited references do not and cannot meet this positively recited claim limitation of the vacuum ports being formed in the vacuum manifold body.

Secondly, Applicants respectfully submit that the cited references fail to teach or disclose “a plurality of pickup orifices adapted for engaging workpieces.” As set forth above, the Office correlates the plurality of apertures 35 of the Cantrill reference with the recited “plurality of pickup orifices.” Applicants respectfully submit that the plurality of apertures 35 do not engage the workpieces handled by the vacuum holding surface of the Cantrill reference. Rather, the plurality of apertures 35 are disposed within grooves 36 of each segment 30, and therefore, are recessed within grooves 36. Accordingly, since apertures 35 are recessed with grooves 36, they are not positioned in such a way that would allow them to engage the workpiece. Conversely, in Applicants’ invention, the orifices are not recessed within grooves, but rather are disposed in the portion of the tool that engages the workpieces the tool handles (see, for example, Figure 4). Thus, Applicants respectfully submit that the cited references do not and cannot meet the positively recited claim limitation of a plurality of pickup orifices adapted for engaging workpieces.

Therefore, in light of the foregoing, Applicants respectfully submit that the cited references, either alone or in combination, fail to meet each and every limitation recited in claims 1 and 7. Accordingly, Applicants respectfully submit that the rejection of claims 1 and 7 does not fully satisfy the standard of rejection, and Applicants respectfully request that the Office reconsider and withdraw this rejection.

With respect to dependent claims 2-4 and 6, Applicants respectfully submit that these claims depend from base claim 1, and therefore, include each and every limitation thereof. Accordingly, for at least the reasons set forth above relating to the allowability

of claim 1, Applicants respectfully submit that claims 2-4 and 6 are likewise allowable. Therefore, Applicants respectfully request that the rejection of these claims be reconsidered and withdrawn.

**V. REJECTION OF CLAIMS 5, 8, 9 AND 13-20 UNDER 35 U.S.C. § 103(a)**

Claims 5, 8, 9 and 13-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,498,663 issued to Cantrill in view of U.S. Patent No. 5,387,068 issued to Pearson, and further in view of U.S. Patent No. 3,933,388 issued to Conboy.

More particularly, in addition to Office's assertions relating to claims 1-4, 6 and 7 set forth above, the Office further asserts that Conboy shows a suction hoisting tool comprising a venturi-type vacuum generator that can also function to provide positive air pressure to blow off a workpiece when positioned at a desired location. Accordingly, in the Office's opinion, it would have been obvious to provide a venturi-type blow off valve on the modified Cantrill assembly (as discussed above) as taught by Conboy so that a gripped workpiece could be accurately dropped off at a precise location. For at least the following reasons, Applicants respectfully traverse this rejection.

As discussed above, in light of Applicants' recent telephone conversation with the Examiner and a detailed telephone message received from the Examiner, it is Applicants' understanding, that the structure of the Cantrill reference the Office correlates with the "plurality of vacuum ports formed in a vacuum manifold" is "vacuum ports (40, 42);” and the structure corresponding to the recited "plurality of pickup orifices" is that labeled as reference numeral 35 in the Cantrill reference. Additionally, based on the detailed telephone message received from the Examiner, it is Applicants' further understanding that the structure of the Cantrill reference the Office correlates with the recited "baseplate" is "framework 20;" and the structure corresponding to the recited "vacuum manifold body" is "segment(s) 30." Accordingly, Applicants are relying on this understanding in responding to the rejection set forth above. If, however, Applicants' understanding is incorrect, Applicants would appreciate notification of the same, and hereby reserve the right to present further arguments based on the correct correlation between the limitations recited in the claim and the cited reference.

“Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case.” MPEP § 2141 (emphasis in original).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP § 2143. Applicants respectfully submit that with respect to independent claim 8, Cantrill and Pearson, either alone or in combination, fail to teach or suggest all the limitations of claim 8 (as amended).

Firstly, Applicants respectfully submit that the cited references fail to teach or disclose “a plurality of vacuum ports formed in a vacuum manifold body.” (emphasis added). Applicants respectfully submit that the “vacuum ports (40, 42)” the Office correlates with the recited “plurality of vacuum ports” are not formed in a vacuum manifold body, which the Office is correlating to segment(s) 30 of the Cantrill reference, but rather are “supply lines (40, 42)” that serve as conduits (*i.e.*, tubing) between a vacuum supply chamber 45 and segment(s) 30. Accordingly, as shown in Figure 1 of Cantrill, the “vacuum ports (40, 42)” are not formed within a manifold body, but rather appear to be mounted on the top surface of platen 10. Thus, Applicants respectfully submit that the cited references do not and cannot meet this positively recited claim limitation of the vacuum ports being formed in the vacuum manifold body.

Secondly, Applicants respectfully submit that the cited references fail to teach or disclose “a plurality of pickup orifices adapted for engaging workpieces.” As set forth above, the Office correlates the plurality of apertures 35 of the Cantrill reference with the recited “plurality of pickup orifices.” Applicants respectfully submit that the plurality of apertures 35 do not engage the workpieces handled by the vacuum holding surface of the Cantrill reference. Rather, the plurality of apertures 35 are disposed within grooves 36 of each segment 30, and therefore, are recessed within grooves 36. Accordingly, since apertures 35 are recessed with grooves 36, they are not positioned in such a way that would allow them to engage the workpiece. Conversely, in Applicants’ invention, the

orifices are not recessed within grooves, but rather are disposed in the portion of the tool that engages the workpieces the tool handles (see, for example, Figure 4). Thus, Applicants respectfully submit that the cited references do not and cannot meet this positively recited claim limitation of a plurality of pickup orifices adapted for engaging workpieces.

Lastly, Applicants respectfully submit that cited references fail to teach or disclose an air-powered vacuum tool that includes each of a baseplate, a vacuum manifold body within which a plurality of vacuum ports are formed, and a removable workpiece interface plate within which a plurality of pickup orifices are formed, as is recited in claim 8. Rather, Cantrill at most teaches a baseplate 20 (*i.e.*, rectangular flanged framework 20), and a vacuum manifold body or an interface plate 30 (*i.e.*, segment(s) 30). As interpreted by the Office, the manifold or plate of the Cantrill reference that includes the plurality of vacuum ports formed therein (which, as set forth above, the manifold or plate does not have vacuum ports formed therein) also has the plurality of pickup orifices adapted for engaging workpieces (which, as set forth above, the “orifices” identified by the Office do not engage the corresponding workpiece) formed therein. Accordingly, the Cantrill reference fails to disclose a manifold body in which vacuum ports are formed, and a separate and distinct removable interface plate in which pickup orifices are formed. Therefore, because the cited references fail to teach or disclose a tool having a baseplate, a vacuum manifold body, and a removable interface plate, all of which are separate and distinct from each other, the cited references do not and cannot meet these limitations.

Therefore, in light of the foregoing, Applicants respectfully submit that the cited references, either alone or in combination, fail to meet each and every limitation recited in claim 8. Accordingly, Applicants respectfully submit that the rejection of claim 8 does not fully satisfy the standard of rejection, and Applicants respectfully request that the Office reconsider and withdraw this rejection.

With respect to dependent claims 5, 9 and 13-20, Applicants respectfully submit that these claims depend from base claims 1 and 8, respectively, and therefore, include each and every limitation thereof. Accordingly, for at least the reasons set forth above relating to the allowability of claims 1 and 8, Applicants respectfully submit that claims 5,

9 and 13-20 are likewise allowable. Therefore, Applicants respectfully request that the rejection of these claims be reconsidered and withdrawn.

#### **VI. REJECTION OF CLAIM 10 UNDER 35 U.S.C. § 103(a)**

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,498,663 issued to Cantrill in view of U.S. Patent No. 5,387,068 issued to Pearson and U.S. Patent No. 3,933,388 issued to Conboy, and further in view of U.S. Patent No. 5,024,575 issued to Anderson.

More particularly, in addition to the Office's assertions set forth above relating to claim 8, the Office further asserts that Anderson shows a plurality of air-powered outboard stabilizers (45) for providing support in addition to the vacuum force of its pick-up tool. For at least the following reasons, Applicants respectfully traverse this rejection.

Claim 10 depends from base claim 8, and therefore, includes each and every limitation thereof. Accordingly, for at least the reasons set forth above relating to the allowability of claim 8, Applicants respectfully submit that claim 10 is likewise allowable. Therefore, Applicants respectfully request that the rejection of claim 10 be reconsidered and withdrawn.

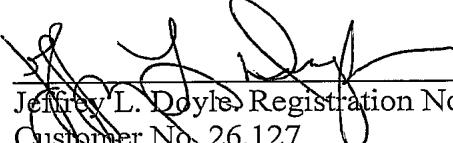
#### **VII. ALLOWABLE SUBJECT MATTER – CLAIMS 11 AND 12**

Claims 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In light of the amendments made above, Applicants respectfully submit that this objection has been overcome, and Applicants respectfully request that it be reconsidered and withdrawn.

## VIII. CONCLUSION

Applicants respectfully submit that in light of the foregoing, claims 1-20 are in condition for allowance and hereby respectfully request a Notice of Allowance of the same. If the Examiner has any further questions regarding this matter, please contact Applicants' undersigned attorney.

Respectfully submitted,

  
\_\_\_\_\_  
Jeffrey L. Doyle, Registration No. 54,074  
Customer No. 26,127  
DYKEMA GOSSETT PLLC  
39577 Woodward Ave., Ste. 300  
Bloomfield Hills, MI 48304  
(248) 203-0782  
Attorney for Applicants

BH01\668012.1  
ID\JLDO